

REMARKS

A. The Section 112, First Paragraph Rejections

(i) Ultra Long Reach Networks Existed at the Time the Present Application Was Filed

Claims 1-18 were rejected based on 35 U.S.C. § 112, first paragraph, the Examiner taking the position that because the specification states in one place that Ultra Long Reach (ULR) optical networks are “in the planning stages or just being built” that the Applicants could not have had possession of their claimed inventions at the time the present application was filed. The Applicants respectfully disagree and traverse these rejections for at least the following reasons.

Initially, Applicants note that one of ordinary skill in the art upon reading the instant specification would realize that ULR networks were indeed built and installed as of February 14, 2002; the filing date of the instant application.

Further, the Examiner has ignored the text in paragraphs [0002] through [0007] where the Applicants explain: (a) the ability of ULR networks to transmit optical signals over long distances; (b) the advantages offered by ULR networks; and (c) the shortcomings of existing cross-connections used in existing ULR networks. All of the information in (a) through (c) was realized by the Applicants precisely because ULR networks had already been built, at least to the extent necessary for the Applicants to have realized the shortcomings of existing cross connections and to conceive and develop solutions to these shortcomings (i.e., their claimed inventions). The Applicants respectfully submit that the Examiner’s position strains credulity. If the Examiner has evidence that establishes that ULR networks were not built at the time of the filing of the present application, then the Applicants respectfully request that such evidence be

set forth in an affidavit or the like. Otherwise, the Applicants respectfully request withdrawal of the rejections and allowance of claims 1-18.

(ii) The Specification Discloses Non-Dedicated Processing Units

Claims 1-18 were also rejected based on 35 U.S.C. §112, second paragraph, the Examiner taking the position that the specification does not describe the processing units as “non-dedicated”. The Applicants respectfully disagree and traverse these rejections for at least the following reasons.

The last line of paragraph [0021] states as follows: “Whatever the case, none of the units 51-m are solely dedicated to one link.” (underlining added) This statement clearly indicates that the units are non-dedicated.

. Accordingly, the Applicants respectfully request withdrawal of the rejections and allowance of claims 1-18.

B. The Section 112, Second Paragraph Rejections

Dependent claims 16-18 were rejected based on 35 U.S.C. §112, second paragraph the Examiner stating that it is “unclear what the group elements” in these claims “actually is”. Applicants disagree and traverse these rejections.

Initially, the Applicants note that the Examiner’s rejections are unclear. Are the terms unclear to the Examiner? What is the Examiner having a problem understanding?

Each of dependent claims 16-18 contain the phrase: “wherein the at least one unit is selected from the group consisting of”. The reference to “unit” in this phrase refers back to an earlier claim (1, 6 or 11) which uses the term “processing unit”. Thus, the Applicants respectfully submit that the “group” referred to in claims 16-18 clearly indicates a group of processing units.

Accordingly, the Applicants respectfully request withdrawal of the rejections and allowance of claims 16-18.

C. The Section 102 Rejections

Claims 1, 4-6, 9-11, 14 and 15 were rejected under 35 U.S.C. 102(b) as being allegedly anticipated by Fee et al., U.S. Patent 5, 726,788, (hereinafter “Fee”). Applicants disagree and traverse these rejections.

Applicants respectfully submit that Fee fails to teach or suggest a connection device that comprises an optical switch that receives ULR optical signals and connects at least one non-dedicated processing unit to one or more of the received signals based on a characteristic of each signal as in claim 1 and its dependent claims.

In contrast, Fee is silent with respect to the type of optical signals involved. Further, Applicants believe that Fee is not directed towards ULR signals because it repeatedly discloses the need for amplification of an optical signal by an amplifier 210 before the signal is input into an optical interface 208 or backplane 308 which, in turn, are connected to functional units 302. It is a characteristic of ULR signals that amplification is not always required; the opposite of the signals disclosed in Fee.

In addition, it does not appear that Fee discloses non-dedicated processing units. Though Fee’s functional units 302 can apparently handle more than one optical signal (though that fact is not altogether clear from a reading of Fee), the units appear to be dedicated to a limited set of signals. In contrast, the processing units in the claims of the present invention are not dedicated to any one or more optical signals. Because of this, the claimed processing units can be used to

improve the characteristics of hundreds, if not thousands, of optical signals (see the specification, paragraph 28).

Because Fee does not teach each and every feature of the claimed inventions, Fee cannot provide a basis for a rejection under 35 U.S.C. §102. Withdrawal of the rejections and allowance of claims 1, 4-6, 9-11, 14 and 15 is respectfully requested.

D. The Section 103 Rejections

Claims 2, 7 and 12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Fee in view of Wong et al., US Patent 6,624,927 (hereinafter “Wong”). Claims 3, 8 and 13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Fee in view of Sharma et al. US Patent 6,331,906 (hereinafter “Sharma”). Applicants respectfully disagree and traverse these rejections for at least the following reasons.

Claims 2, 3, 7, 8, 12 and 13 are allowable at least because these claims depend from allowable claims 1, 6 and 11 for the reasons set forth above as well as on their own merits.

Accordingly, Applicants respectfully request withdrawal of the pending rejections and allowance of claims 2, 3, 7, 8, 12 and 13.

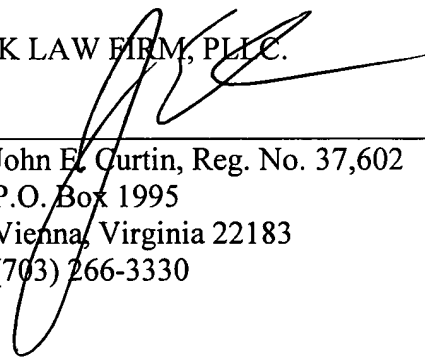
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John E. Curtin at the telephone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3777 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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